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Informationization and Development of Physical Education

Shuo Guan^{*}*Wushu Department, Shenyang Sport University, Shenyang 110102, China*

Abstract

Informatization is the trend of the current world economy and social development, and the education informationization is a hot issue of global educational development. Since the mid-1990s, the developed countries have paid great attention to the education of information technology. Physical education is an important part of school education, is an important means of quality-oriented education implementation, education information on physical education and teaching is sure to produce far-reaching effect. Using information technology to stimulate the modernization of education, efforts to achieve China's education development, physical education is facing the challenge of information technology. Therefore, in-depth study of the physical education has its own characteristics and future trend of informatization has profound realistic significance.

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Key words: information technology; physical education; development

1 Informatization and informatization of Education

Informatization is the trend of current world economy and social development. Since the 1990s, with the multimedia technology and the popularization of Internet, the information technology is changing the mode of production of the human society, working, life style and study way, while the education thought, teaching method and teaching means are also produced far-reaching effects. The international commission on education for the twenty-first Century reported to the UNESCO (UNESCO) in 1996 with the name of 'there are properties in the education', saying that without doubt, the acquisition of personal information and the ability to process information is a decisive factor for himself to enter into the social

^{*} Corresponding author.

E-mail address: shenyangtaixie@163.com.

and cultural environment.

E-education is a hot issue of global educational development. Since the mid-1990s, the developed countries have been paying great attention to the e-education technology, and regarded the abilities of students to manage and apply the information technology, such as of equal importance to the basic abilities, such as read, write and calculation, specially after the rapid popularization of network technology since 1998, , there is an increasingly close relationship between the development of the whole society and information technology, and people have paid more and more attention to the influences given to the social development by information technology, 'informationized society' began to emerge, which has led to high attention of governments and education administrative departments of all levels. E-education has been applied to the practice of teaching and will have a profound impact on the education reform and development. The human being has entered into the era of knowledge economy, and education, as a special industry for training the talents, has to make some judgments on the content, method and means of the education. Physical education is an important part of the school education and also an important means to implement the quality-oriented education and the e-education is bound to have a deep influence on the physical education and teaching. Samaranch, former chairman of the International Olympic Committee President, said the Internet plays an important role in the transmission of information and education. He fully emphasized the important role of information technology playing in the future physical education. E-education is to make the information as one of the basic elements in the education system and in all areas of education, and the information technology should be widely used in all fields in order to promote the modernization of education. At the same time, it is an important part of the quality-oriented education, is a new contents and form of education embodied in the process of quality-oriented education. We should promote the modernization of education with the informationization, and try to realize the leapfrog development of the education of our country, and the physical education also faces the informationized war.

2. The characteristic of physical e-education

2.1 The informatization and digitization of the sports teaching resources

Computers technology is the basis for digitalization and has been widely applied in physical education teaching, making the physical education resources highly integrating, stable performing, and uniform in the technical standard, large storage capacity, and quickly processing speed. Most of the sports teaching media are the image information, requiring larger storage capacity. The digitalization has provided more space for the storage and use of the physical education information, and also provide more convenient conditions for the widely implication of the digitalization of the physical education information.

2.2 Physical education multimedia information system

Multimedia can make integration of the physical information media with single characterization, which makes the sports education information media device have a high degree in integration and good versatility; The use of multimedia technology can also make teaching information with diversified, structured, dynamic and vivid features, and let the technical motion with complexity, and make the boring technology teaching process become direct-viewing scenes.

2.3 The three-dimensional transmission of the physical education information may let the physical education information being shared, and this kind of share includes the share of both hardware and software resources such as storage medium of large capacity, network education resources, network physical education information and physical education news. At present, the core for the informatization

of the physical education is the software sharing, as to which students may learn about the basic knowledge about physical education and the concerning information required by their study through all kinds of information media, multimedia education disks and Internet, to supplement the audio-visual lacks in the technical education and practice to better accomplish the study of the sports techniques. For example, the professional website established by the physical education department of the attached school of Beijing Normal University has established which has been put into use is a very good example for the sharing of the informationized resources.

2.4 The subjectification of the status of the student in the physical education

Since the physical education information has become networked and the information has featured of multimedia and expansibility, the students has completely get rid of the past study mode of passive acceptance and can positively and actively make instruction of their knowledge and realized study the basic knowledge and techniques of the physical education probingly in different environments and conditions, which fully embodying the subject status of the student in the study.

3 The trend of the physical e-education

The use of modern information technology is aimed to be applied in the physical education activities, but to promote the modernization of the physical education.

3.1 The transformation of the single polar to cooperation of the education in the process of physical education.

The characteristics of the work and survival of the people living in the information ages determines that it is needed for people to make cooperation between each other. The traditional physical education process is just simply infusing the basic knowledge and techniques to the students in a single direction, and as a result, the student can only receive the knowledge passively. As a result, the talents cultivated form the education mode lack the cooperation spirit and ability. In order to cultivate the talents which is really needed in the information times, it is urgently needed to for the physical education mode which is of cooperativization, and the cooperative study is just the developing trend in the international education and also an education issue needed to by solved for the modern education. In the cooperative mode of physical education, the student can study not only from the physical education teacher, but also from his/her cooperator, such as the mutual help and correcting the mistakes among the students. The physical education has its own advantage to realize the cooperative mode in the traditional physical education mode, and the e-education also provides a new way and method to the physical study and education of cooperative mode. The modern educational techniques have shown its advantages in the respect of supporting the cooperative study.

3.2 Transformation from the technical study just on the sports ground to the technical study in the multi-environments.

Since the popularization of the computer technology and the gradual improvement and perfecting of the network technology has made the physical technical education and the students' study can be conducted in the multi-environments. The rapid reduction of the cost in all kinds of hardware has made the use of the multi-media disks of physical education convenient like the traditional tools such as paper and pencils, and the student may take the disks back home or to any place they want to study in, and get most visualized and picturized sports techniques concept both visually and acoustically, thus shortcutting the study time and establish the dynamic stereotype of the sports technique as soon as possible. The maturity and popularization of the network technology has realized the across the time and space in the

physical technical education, thus forming a three-dimensional and environmentalization physical education.

3.3 Transformation from the group-oriented mode to the non group-oriented mode in the study activities

Under the guidance of the quality-oriented education, at present, the education of all subjects more focus on the study of the student in the process of education. In the physical education, for the affection and limitation from the traditional education mode (including explanation, demonstration, exercise and rectifying the wrong action) lead to single objective, monotonous study method and close study contents, a kind of education strangling the individuality and creativity of the student. Modern education put great stress on the development of human individual, and using artificial intelligence combined with the psychology to construct a intelligent tutor system, and can conduct education and provide help to the student according to different perception style and need, thus transforming the study mode of the student from the past group mode to the non-group mode as to which the student can arrange the starting point, speed of study, etc. individually in the study process. In the modern education system, only with the support from the modern education technology can make possible of the independent study of the student. In fact, the electronic textbook such as hyper text, hypermedia and the education material on the Internet has provided an extremely convenient condition for the student's independent study. In the traditional education environment, though the physical education can well embody the group-oriented educational idea and cultivate the cooperation ability of the student, it makes limitation to some extent for the individual study, and the informationization can provide more possibility for the physical education.

3.4 Physical teaching moves towards virtualization of learning situation

Physical teaching situation is a situation for the carrying out of the physical teaching activities and it immediately influences the quantity and quality of students' cognition in the process of physical teaching. The virtualization of physical teaching situation means the teaching activities largely free from physical space and time limit. It can imitate the related technical movement of the contents of physical technology teaching in front of the students through the computer simulation technology and multimedia technology. It makes students to learn as personally on the scene so the content is easily understood. In addition, this method can make the students interested in learning activities. It can also simulate the physical teaching environment by network. If one can fully develop the function of the virtual network teaching, then the combination of virtual physical teaching and actual physical teaching and the breakthrough of the school teaching and outside school teaching will be possible. Recently, it is not mature of the physical teaching on technology and environment of virtual teaching, but this will be the trend and direction of sports E-education. How to choose and construct the virtual physical teaching situation is the development tendency of the physical teaching in the future and it is the problem must be taken into consideration by the physical teachers.

3.5 The physical teaching model form simplification to diversification

The talents of traditional physical teaching model cannot adapt to the modern society's need. With the development of E-education and the rapid expansion of the network learning resources, the diversification in teaching model is an inevitable tendency of the development of the physical teaching, just like other courses. The research study and discovery learning which could not develop in traditional education situation will raise again, especially the kind of teaching model considering the learning as center will be widely recognized. The teaching activity will pay attention to make full use of network resources and all kinds of information resources for assisting students learn autonomously.

3.6 Provide a wider stage and space for physical correspondence

Online teaching is developing fast and all kinds of network school (university) have mushroomed. In view of the characteristics of the sports education itself, physical correspondence should combine the online teaching and face-to-face teaching and make the modern information technology to fully service for our physical teaching. But the network education is still in the blank, physical teachers must understand clearly that remote education is the inevitable trend of the development of physical education

4. Conclusion

4.1 E-education provides a wider space and stage for physical education. It makes the physical teaching resources digitization and media-oriented which promotes the resources sharing of physical education.

4.2 E-education make physical teaching process to transform from unipolarity to co-operation; the learning activities of students transform from group-oriented to non group-oriented.

4.3 It is possible for physical teaching transform from simplification to diversification

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